Data sheet

HP MSM-802.11n Access Point Series

Key features

- Single radio
- IEEE 802.11 a/b/g/n access point
- Increased network speed and capacity
- Protection against rogue 802.11a/b/g/n AP/client
- Indoor enclosure

Product overview

HP offers intelligent IEEE 802.11n wireless access points, ranging from our single-radio IEEE 802.11a/b/g/n to our dual 802.11 a/b/g/n access points. The MSM access points are advanced wireless devices that provide consistent, easy-to-manage connectivity that expands your existing network. The access points maintain your network without interruption and reduce bottlenecks and network complexity by determining where data needs to go throughout the network. The MSM access points provide complete wireless coverage for greater reliability and connectivity. The HP IEEE 802.11n-capable RF Security sensor brings security to the network edge by providing scalable 24 x 7 IDS/IPS capabilities that prevent security breaches on IEEE 802.11a/b/g and 802.11n wireless networks. The MSM access points and RF Security sensor require a single Power over Ethernet (PoE)-cable drop, are IEEE 802.3af compliant, and support a plug-and-play automatic configuration.

Features and benefits

Quality of Service (QoS)

- **IEEE 802.1p prioritization**
  delivers data to devices based on the priority and type of traffic
- **SpectraLink Voice Priority (SVP) support**
  prioritizes SpectraLink voice IP packets sent from a SpectraLink NetLink SVP server to SpectraLink wireless voice handsets to help ensure excellent voice quality
- **Wireless**
  - L2/L3/L4 classification: IEEE 802.1p VLAN priority, SpectraLink SVP, and DiffServ
  - Wi-Fi MultiMedia (WMM), IEEE 802.11e EDCF, and Service-Aware priority assigned by VSC
  - Maximum VoIP call capacity: 12 active calls on IEEE 802.11 a/b/g/n
- **Network management**
  - Fully manageable using HP Manager and HP Mobility Manager
  - SNMP v2c, SNMP v3, MIB-II with Traps, and RADIUS Authentication Client MIB (RFC 2618)
  - Embedded HTML management tool with secure access (SSL and VPN)
  - Scheduled configuration and firmware upgrades from a central server
- **Diagnostic**
  - Client event log records association, authentication, and DHCP events
  - Packet capture tool for Ethernet and IEEE 802.11 interfaces (PCAP format)
  - Data rate matrix

Intrusion detection/prevention system (IDS/IPS)

- **Protection against rogue IEEE 802.11a/b/g/n access points and wireless clients**
  HP MSM415 RF Security Sensors continuously scan for detection, classification, and prevention of wireless threats on IEEE 802.11a/b/g and 802.11n wireless networks
- **Provides 24 x 7 detection, classification, and prevention capabilities**
  HP MSM415 RF Security Sensors are able to continuously provide detection, classification, and prevention capabilities, even when the connectivity to the HP RF Manager IDS/IPS Controller is lost; the MSM415 security sensor supports all HP and third-party WLAN deployments
- **Signature-based detection**
  detects attacks that have known attack patterns; IPS maintains a signature database that contains the pattern definitions for known attacks that can be automatically updated using a subscription service
- **Protocol anomaly-based detection**
  detects attacks that use anomalies in application protocol payloads

Connectivity

- **Auto-MDIX**
  automatically adjusts for straight-through or crossover cables on all 10/100 ports
- **IEEE 802.3af Power over Ethernet (PoE) support**
  simplifies deployment and dramatically reduces installation costs by helping to eliminate the time and cost involved in supplying local power at each access point location

Mobility

- **Anywhere, anytime wireless coverage**
  - Single radio IEEE 802.11a/b/g/n access point
  - Per-radio software-selectable configuration of frequency bands
  - Self-healing, self-optimizing local mesh extends network availability
  - Wi-Fi Alliance Certified for interoperability with all IEEE 802.11a/b/g/n client devices
  - IEEE 802.3af PoE powered
- **Medical standards**
  meets the European EN60601-1-2 standard for healthcare
- **Interoperability**
  Wi-Fi Alliance certifications, including IEEE 802.11g Wi-Fi and WPA2, to help ensure multivendor interoperability
- **Virtual Service Communities (VSCs)**
  - Up to 16 SSIDs, each with unique MAC address, and configurable SSID broadcasts
  - Individual security and QoS profiles per VSC
  - Configurable DTIM and minimum data rate per VSC
  - Each VSC can be mapped to separate IEEE 802.1Q VLANs
  - WMM and/or WMM-PS
  - Security filter
  - IP filter
- **AP client access control functions**
  - IEEE 802.1X authentication using EAP-SIM, EAP-FAST, EAP-TLS, EAP-TTLS, and PEAP
  - MAC address authentication using local or RADIUS access lists
  - RADIUS AAA using EAP-MD5, PAP, CHAP, and MS-CHAPv2
  - RADIUS Client (RFC 2865 and 2866) with location-aware support
  - Layer 2 wireless client isolation
- **Auto Channel Select (ACS)**
  helps reduce radio co-channel interference by automatically selecting an unoccupied radio channel

Security

- **Choice of IEEE 802.11i, WPA2, or WPA**
  locks out unauthorized wireless access by authenticating users prior to granting network access; robust Advanced Encryption Standard (AES) or Temporal Key Integrity Protocol (TKIP) encryption secures the data integrity of wireless traffic
- **Local wireless bridge client traffic filtering**
  when enabled, prevents communication between wireless devices associated with the same access point
- **IEEE 802.1X**
  provides port-based user authentication with support for Extensible Authentication Protocol (EAP) MD5, TLS, TTLS, and PEAP with choice of AES, TKIP, and static or dynamic WEP encryption for protecting wireless traffic between authenticated clients and the access point

Warranty and support

- **Lifetime warranty**
  for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)†
- **Electronic and telephone support**
  limited electronic and telephone support is available from HP; to reach our support centers, refer to **www.hp.com/networking/contact-support**; for details on the duration of support provided with your product purchase, refer to **www.hp.com/networking/warrantysummary**
- **Software releases**
  to find software for your product, refer to **www.hp.com/networking/support**; for details on the software releases available with your product purchase, refer to **www.hp.com/networking/warrantysummary**

†HP warranty includes repair or replacement of hardware for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP AllianceOne Advanced Services and Services zl Modules, HP Threat Management Services zl Module, HP AllianceOne Extended zl Module with Riverbed Steelhead, HP MSM765zl Mobility Controller and HP Survivable Branch Communication zl Module powered by Microsoft Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at **www.hp.com/networking/warranty**.

HP MSM-802.11n Access Point Series

Specifications

	HP MSM410 Access Point (US) (J9426B) HP MSM410 Access Point (WW) (J9427B) HP MSM410 Access Point (JP) (J9529B) HP MSM410 Single Radio 802.11n AP (IL) (J9616A) HP MSM410 Access Point (WW) (J9427C)
Ports	1 RJ-45 autosensing 10/100/1000 port (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 1 RJ-45 serial console port
AP characteristics	
Radios	Single (a/b/g/n)
Radio operation modes	Client access, Local mesh, Packet capture
AP operation modes	Autonomous and controlled
Wi-Fi Alliance Certification	a/b/g/n Wi-Fi Certified
Physical characteristics	
	5.19(w) x 6.16(d) x 1.94(h) in (13.17 x 15.64 x 4.94 cm)
Weight	0.72 lb (0.33 kg) mounting bracket
Enclosure	Indoor, plenum rated
Memory and processor	
Processor	Single core @ 384 MHz, 128 MB flash, 256 MB SDRAM
Mounting	Includes two mounting clips
Environment	
Operating temperature	32°F to 122°F (0°C to 50°C)
Operating relative humidity	5% to 95%, noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	5% to 95%, noncondensing
Electrical characteristics	
Description	IEEE 802.3af PoE compliant for Gigabit Ethernet
Maximum power rating	8 W
Antenna	(3) Integrated, dual-band 2.4/5 GHz omnidirectional antennas
Number of internal antennas	3
Frequency band and operating channels	
FCC	2.412 - 2.462 GHz (1 - 11 channels) 5.180 - 5.240 GHz (36 - 48 channels) 5.260 - 5.320 GHz (52 - 64 channels) 5.500 - 5.700 GHz (100 - 140 (excluding 120, 124 and 128) channels) 5.745 - 5.825 GHz (149 - 165 channels)
European Union	2.412 - 2.472 GHz (1 - 13 channels) 5.180 - 5.240 GHz (36 - 48 channels)
Rest of World (Actual channels designated by selecting country in UI)	2.412 - 2.472 GHz (1 - 13 channels) 5.180 - 5.240 GHz (36 - 48 channels) 5.260 - 5.320 GHz (52 - 64 channels) 5.500 - 5.700 GHz (100 - 140 channels) 5.745 - 5.825 GHz (149 - 165 channels)
Taiwan	2.412 - 2.462 GHz (1 - 11 channels) 5.280 - 5.320 GHz (56 - 64 channels) 5.745 - 5.825 GHz (149 - 165 channels)
Japan	2.412 - 2.472 GHz (1 - 13 channels) 5.180 - 5.240 GHz (36 - 48 channels) 5.260 - 5.320 GHz (52 - 64 channels)
Israel	2.412 - 2.472 GHz (1 - 13 channels) 5.180 - 5.240 GHz (36 - 48 channels) 5.260 - 5.320 GHz (52 - 64 channels)
European Union (J9427B)	2.412 - 2.472 GHz (1 - 13 channels) 5.180 - 5.240 GHz (36 - 64 channels) 5.260 - 5.320 GHz (52 - 64 channels) 5.500 - 5.700 GHz (100 - 140 (excluding 5600-5650 MHz) channels)
Radio	FCC Part 15.247; FCC Part 15.407 (US); RSS-210 (Canada); EN 300 328; ARIB STD-T66; IDA Registration (Singapore); MIC approval (Korea); RCR STD-33; ARIB STD-T71 (Japan); EN 301 893 (EU)
Safety	UL 2043; UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1
RF Exposure	FCC Bulletin OET-65C; RSS-102

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Specifications (continued)

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Features	Single radio: IEEE 802.11n for high-throughput applications and IEEE 802.11a/b/g for legacy support - Integrated antennas for both IEEE 802.11a/b/g (diversity) and 802.11n (3x3 MIMO) - Will operate the radio; full power on IEEE 802.3af PoE for Gigabit Ethernet
Emissions	EN 55022 Class B; EN 60601-1-2; EN 301 489-1; EN 301 489-17; ICES-003 Class B; FCC Part 15, Class B
Notes	Maximum transmit power varies by country.
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UN683E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UN684E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (UN686E) 3-year, 24x7 SW phone support, software updates (UN685E) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (HR939E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (HR940E) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (HR941E) 4-year, 4-hour onsite, 13x5 coverage for hardware (US013E) 4-year, 4-hour onsite, 24x7 coverage for hardware (US014E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (US015E) 4-year, 24x7 SW phone support, software updates (US016E) 5-year, 4-hour onsite, 13x5 coverage for hardware (US017E) 5-year, 4-hour onsite, 24x7 coverage for hardware (US018E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (US019E) 5-year, 24x7 SW phone support, software updates (US020E) 3 Yr 6 hr Call-to-Repair Onsite (UW416E) 4 Yr 6 hr Call-to-Repair Onsite (UW417E) 5 Yr 6 hr Call-to-Repair Onsite (UW418E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR943E) 1-year, 24x7 software phone support, software updates (HR942E) 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS830E) 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS831E) 3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS832E) 3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS833E) 4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS834E) 4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS835E) 5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS836E) 5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS837E) Refer to the HP website at **www.hp.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

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Specifications (continued)

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HP MSM410 Single Radio 802.11n AP (IL) (J9616A)
HP MSM410 Access Point (WW) (J9427C)

Radio characteristics:
HP MSM410 Access Point (US) (J9426B)
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HP MSM410 Access Point (WW) (J9427C)

Note: These radio characteristics apply to all the products in this series.

IEEE 802.11n 5 GHz @ 20 MHz

Data rate	MCS0/MCS8 Mbps	MCS7/MCS15 Mbps
Receiver sensitivity	-95 dBm	-77 dBm
Transmit power	18 dBm	10 dBm

IEEE 802.11n 5 GHz @ 40 MHz

Data rate	MCS0/MCS8 Mbps	MCS7/MCS15 Mbps
Receiver sensitivity	-92 dBm	-74 dBm
Transmit power	17 dBm	10 dBm

IEEE 802.11n 2.4 GHz @ 20 MHz

Data rate	MCS0/MCS8 Mbps	MCS7/MCS15 Mbps
Receiver sensitivity	-96 dBm	-79 dBm
Transmit power	19 dBm	10 dBm

IEEE 802.11n 2.4 GHz @ 40 MHz

Data rate	MCS0/MCS8 Mbps	MCS7/MCS15 Mbps
Receiver sensitivity	-91 dBm	-75 dBm
Transmit power	17 dBm	10 dBm

IEEE 802.11a

Data rate	6 Mbps	54 Mbps
Receiver sensitivity	-95 dBm	-82 dBm
Transmit power	18 dBm	12 dBm

IEEE 802.11b

Data rate	1 Mbps	11 Mbps
Receiver sensitivity	-96 dBm	-92 dBm
Transmit power	18.5 dBm	18.5 dBm

IEEE 802.11g

Data rate	6 Mbps	54 Mbps
Receiver sensitivity	-96 dBm	-83 dBm
Transmit power	18 dBm	13 dBm

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Standards and protocols (applies to all products in series)	**Mobility** IEEE 802.11a High Speed Physical Layer in the 5 GHz Band IEEE 802.11b Higher-Speed Physical Layer Extension in the 2.4 GHz Band IEEE 802.11d Global Harmonization	IEEE 802.11g Further Higher Data Rate Extension in the 2.4 GHz Band IEEE 802.11i Medium Access Control (MAC) Security Enhancements IEEE 802.11n WLAN Enhancements for Higher Throughput

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MCS Index	800 nS Guard Interval		400 nS Guard Interval	
	20 MHz Rate (Mbps)	40 MHz Rate (Mbps)	20 MHz Rate (Mbps)	40 MHz Rate (Mbps)
0	6.5	13.5	7.2	15
1	13	27	14.4	30
2	19.5	40.5	21.7	45
3	26	54	28.9	60
4	39	81	43.3	90
5	52	108	57.8	120
6	58.5	121.5	65	135
7	65	135	72.2	157.5
8	13	27	14.4	30
9	26	54	28.9	60
10	39	81	43.3	90
11	52	108	57.8	120
12	78	162	86.7	180
13	104	216	115.6	240
14	117	243	130	270
15	130	270	144.4	300

HP MSM-802.11n Access Point Series accessories

Power Supply

HP 1-port Power Injector (J9407B)

HP access points and access devices are Wi-Fi Certified, providing our customers with the assurance that these products have met and passed the rigorous interoperability testing preformed by the Wi-Fi Alliance Organization. See the Specifications section of this series for more information.

To learn more, visit hp.com/networking

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